



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,823	02/20/2004	Kunihiro Tsuzuki	461-162	3962
23117	7590	07/27/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			TRAN, BINH Q	
			ART UNIT	PAPER NUMBER

3748

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,823

Applicant(s)

TSUZUKI ET AL.

Examiner

BINH Q. TRAN

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/20/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 and 3-6 are rejected under 35 U.S.C. 102 (b) as being anticipated by Muschelknautz et al. (Muschelknautz) (Patent Number 5,567,393).

Regarding claim 1, Muschelknautz discloses a secondary air supply system comprising: an air pump (28) including an electric motor (30) and a blower (28, 32); a secondary air path (26) for leading the secondary air discharged from said blower to an exhaust pipe upstream of a

Art Unit: 3748

catalyst (14) for purifying the exhaust gas; an on-off valve (e.g. 56, 80) operated to open/close said secondary air path; and a driving means (82) for opening/closing the valve element of said on-off valve (80), wherein said driving means for opening/closing the valve element of said on-off valve includes a diaphragm unit (e.g. 70, 72) having a diaphragm adapted to be displaced by the pressure difference between a diaphragm chamber (74) with the discharge pressure of said blower led thereinto and an atmospheric chamber communicating with the atmosphere (e.g. See Figs. 3-4), and a transmission means for transmitting the displacement of said diaphragm to said valve element, and wherein said diaphragm chamber is arranged in the neighborhood of the outlet of said blower, and part of the air discharged from said blower flows directly into said diaphragm chamber (e.g. See Figs. 3-4; col. 3, lines 65-67; col. 4, lines 1-61).

Regarding claim 3, Muschelknautz further discloses that the transmission means is a single shaft connecting said diaphragm and said valve element and arranged on the same axis as the rotary shaft of said electric motor on the air discharge side of said air pump, and wherein said on-off valve including said diaphragm unit and said air pump are integrated with each other (e.g. See Fig. 2; col. 2, lines 61-67; col. 3, lines 1-64).

Regarding claim 4, Muschelknautz further discloses that the element is arranged in such a manner as to be seated in closing contact with the side of an opening of a valve seat member downstream of the pump (e.g. See Fig. 2; col. 2, lines 61-67; col. 3, lines 1-64).

Regarding claim 5, Muschelknautz further discloses that the at least a control relay for supplying said electric motor intermittently with the current from a DC power supply mounted on a vehicle, wherein said control relay is arranged integrally with said electric motor in the neighborhood of the intake air path for leading the air from the air inlet of said air pump to the

Art Unit: 3748

air inlet of said blower (e.g. See Figs. 3-4; col. 2, lines 61-67; col. 3, lines 1-67; col. 4, lines 1-61).

Regarding claim 6, Muschelknautz further discloses that the surface of said valve element of said on-off valve adapted to be in closing contact with said opening is located nearer to the discharge outlet of said blower, and the other surface of said valve element is located on the exhaust side (e.g. See Figs. 3-4; col. 2, lines 61-67; col. 3, lines 1-67; col. 4, lines 1-61).

Allowable Subject Matter

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents:

Pozniak et al. (Pat. No. 3940928), Katahira et al. (Pat. No. 4175386), Stoltman (Pat. No. 4346555), Otsuka et al. (Pat. No. 4450680), and Hoshi (Pat. No. 5271223) all disclose an exhaust gas purification for use with an internal combustion engine.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT
July 22, 2005



Binh Q. Tran
Patent Examiner
Art Unit 3748